

10/582241

AP3 Rec'd PCT/PTO 09 JUN 2008

WO 2005/056800

PCT/KR2004/003031

Sequence Listing

<110> CJ CORP.

<120> A novel L-threonine importer from Corynebacterium and a preparation method of a strain producing L-threonine

<130> YL04022PCT

<140> PCT/KR2004/003031

<141> 2004-11-23

<150> KR2003-0089711

<151> 2003-12-10

<160> 1

<170> KopatentIn 1.71

<210> 1

<211> 4846

<212> DNA

<213> Corynebacterium glutamicum ATCC 13032

<220>

<221> gene

<222> (23)..(1168)

<223> ORF1

<220>

<221> gene

<222> (1772)..(3025)

<223> ORF2, novel L-threonine importer (thrY)

<400> 1

gatcggtccg cacggctggc gaatgcttga atcctgggt ctgctcgacc aaattgtcgt 60

ggccggctac ctcccagaag acatgcagtt ccgcgacgct gtcaaccgcg aaaccatcct 120

gaccatgcgt ttcgatgaag aattccagca gcactacggc ggtcgctacc tggtgattca 180

Sequence Listing

ccgctctgac ctgctcaaca tcctggcac caacgccgaa gcagcggcg cgaagctcca 240
caatggcgtc ctggtcaccg attccgcac cgtcgacgac ggtatcgagg tggacatcga 300
atcctccatc aacaagggcg aagataacaa gactttgc tt gtcgacgcct tcctgcctt 360
cgacggcatc cactcggtca tgcgaaaaa gcttgcac gacgccccg tcgcctcctc 420
ctacgtcgcc taccgcggca cctccaagct ggcagaagac gccgaaatga aggacctgaa 480
atccgtcatc ggctacatcg gaccacacgt gcacttcatc caataccac tgcgccggcg 540
agaactcctc aatcaggtcg ccgttttgta atcccagcgt tacctcgatg gacgcaccgc 600
cggcgacatc ccagaagact gggcaaccc cgaagaattt gaccgcgcct acaaccactg 660
cgacccttc atccaggacc gtctggacac cctgtggcg aacaacttgtt ggcaaatgtc 720
cgaccgcgag cctctagaga actggcgat cggccgcattt ttgctgcttgc ggcacgcgc 780
ccacgcaccc ctccagtacc tcgcctcagg cgccgtcatg gccatggaag acgcccggc 840
tgtcgccctc ttgcgtgccc acgctgcgcg tgctggcaac ctgcattttttt aagaggta 900
cgcagaggtg gaagctgaac gcccggccacg ctgcagccgc atccaaacccg taggcgttt 960
ctggggagag ctctggcatg tggaggcac cgacgtctc atccgcaacg aagttttccg 1020
ccaaggcagac cgcaatggct gttcatcta tgcagactgg ctgtgggtt acgatgcattc 1080
caagcgtgcc cacatcgcca accctgagct cggagaaaatg ccacaaggcac tgaaggaatg 1140
gcgctacgcc ctccctcgaaac agaaatagca gcctcacctg ttaaggaaa attgtgtgt 1200
tttcccaggc aggctttta atgtcgagtt cttaagttcg atttcttaac agcgatttca 1260
gtcggaaaac cggggaaaac cgagcgaaat cgctgtttag aaattgagct tgaggtattt 1320
gaaccatgaa ctcgacaccg tgaaatcgca gttaaagaaac aaccgcgaaa tatggcggtt 1380

Sequence Listing

taaggcgtcg aggtttccgt atgggtgtga gtctagggag agccagttaa ggcccttaga	1440
agcgattctg tgaggtcaaa cttttaggga tctcggtcgt gaattcaccc ttttcgaggc	1500
agaccagaca ggcgtgacaa gattggcgaa aaagccgagg ttttggcacg tgtgtccggt	1560
ttccaatccc ctaaaccaga cagacgtgcc aaaacctggc gaaaatccag attcttgtca	1620
cgcctgtctg gtttctcctt ttgagcgacc caaaccacgc ccgaaccacc gttccacagc	1680
ccccacgaac cctcaagaca gaaaagatcg caccagccgc atcgagctgg tgcgatcaaa	1740
ccgcagtaaa aactacagaa aatgcgggtt tctacttgcg atgttccaca tccgatggag	1800
tgatgtcgaa ggcaa'cgccg tcgtcttctt cgatttcatc tggggaaagtg gtgtgcagct	1860
ggcccttggc gaatttggc acgatgactg cgattgcgcc gtcgcccgtg acgtttgctg	1920
cggtgccgaa ggagtcaatc gcgatgtaaag cggcgatcat gagggcgact tgttcggtgt	1980
tgaatccgag catggaggcc agcatgccgg ttgctccat gatggctccg ccgggaacgc	2040
ctgggtcgcc gatcatggtg atgcccagca tgaggagaa tccgatggag aggccgacgc	2100
ctacttccat gtcgtacatg aagacaacag cgaagggtgaa gaggccgatc ttcatcatcg	2160
atccagctag gtggatggtg ggcacacatg ggacaacaaa gcctgcgacg ttgacatcaa	2220
catcgaaaa cagggctctgc tggtaggtca ctgggatggt tgccgctgaa gaggaggtgc	2280
ccagtgcagt gaagtatgca gggagcatgt tttgaacag tttccatggg ttcttcttgg	2340
atactgcacc agcgataatg aactggatgg ctaggaagag cagggttccc acgacggcga	2400
gaatcagtac cttgccaaag gcggacatga tctccaggag gccaccgttc atgcccattgc	2460
cgaggaagat gccgaagatg aagagtggca gcagtggat gacaaaggcg gtgatggtct	2520
tcatgactac gcgctcgagt tcgcgggtta ccttgaacag ggtgtctgat ttaattacag	2580

Sequence Listing

ccatgcccaag gccgaggcag aatgccagca g c agtgcggc catcaactca aatgggtggtg	2640
gcacatctcgat gttgaagtag ggctggaggg cacctgcac aaggtcgatt tcggtgacgc	2700
tttggtggtc tttcagcagc catgggtaga g c gcttggga tgctccgtag gcgatcagac	2760
cgagaagac ggtggacgac taggcgattt ctgcaacaat gccgagccat ttgccagcgc	2820
ctcgcccgag ccctgcaatg gcggggcga tgagggagaa gatcagcact gggatgaaga	2880
agcccagaaa gttgctgaat aggccgttga aggtggtgaa gatctcagcg agccacaccg	2940
ggaagaagag gctgcagatg attccgagga tgatggcaac gatcactcgg aacagcagcg	3000
acgagctcat gctcttatg tccatggttt ttccttattt ctaatcaggt gctgtctgag	3060
caatgctcgg cagcgcgtga tggaaatttt tgcggcgtt ggaagtgacg ggtcacaagg	3120
acagctcgtg tagaccctgc ctggagccctt gacaaactcc accaaacaac tgcgacgtgt	3180
gtcagattac tgcaggctt tggtaaaacc tagttctttt gaggcggagc atcatacctt	3240
ttaatgtcag gatcgtgcag tgaagaattc aggtatgaaattt actcgctggaa atattggtgg	3300
ggatagagtt gttgttatga cggtgatcgg aattattctt ggcagccttt ttggcggtct	3360
tgcagtcctt ctcatcgtgg ttggtgcttt ggggtggcg gctaagctcc ctggcaaccc	3420
ggttgtggc attcgtgtcc ctgaggtgcg taaatccaa gaattgtggg atatggcgca	3480
ccgtgtcgct ggcccggtgtt gggtgctgtc gggagttcc tttgttattt catcgctagt	3540
tgcgtttgtt gcttctggtt ggatgtggct tggatgtggcg ttgggtgttg tggctgccc	3600
cgtgttcatt ggtatgggtg cgggtatggc tgcgcataact gttgcgtatgg ttgacgcgaa	3660
gcgcagtcgc gaaacccgc aggccctgt ttccgctgaa attgaagagg ccgggtggtgt	3720
gactattacc tcgccgatta tcaacaagac tccgctgaat gcccccaaga ttgacttggaa	3780

Sequence Listing

tgcagtgcgt agagctgcgg aaactacgca agaaccaaaa aatgattaat aattgagaca 3840
agcttcccac tatgtgataa agtcccattt tgtgaataac tcttgtctca gtcaaagcac 3900
ccagtggtgg tggcgcgcta actaagcgag cctgacacacct caagttgttt tcactttgat 3960
gaattttta aggctcgtaa ttcgttcgac gaagaagcgg gcctttgtg gtttttagcc 4020
cacaaccggc aagccctgga tcgaatgaag ctcgcagcga gtaattattt gattttccc 4080
agaaaggctt cagccccaca atgatttcct cggtaggtgc cccatgagca cgaatcccc 4140
tgtttctcc cttagatgtcc gctatcacga ggatgcttct gcattgtttg cccacttggg 4200
tggcacaacc gcagatgatg cagccctgtt ggaaagcgct gatatcacca ccaagaatgg 4260
tatttcttcc ctgcgggtgt tgaagagttc ggtgcgcatt acgtgcacgg gcaacacgg 4320
ggtaacgcag ccgctgacgg actcgggtag ggcagtggtt ggcgcctaa cgcagcagct 4380
tggccagtag aacaccgcag agaacacaccc ttgcgttcgc gcttcagatg cggttgtatg 4440
gcgcgagcgc ctcaccgcac caagcaccat cgaagtgtcg cgcaagttgc agttcgagtc 4500
cggttacagc gacgcgtccc tgccactgct catggcggt ttgcgtttt atttctttaga 4560
aacctttgaa acgctcccg ctgtcgagga gagcgtcaac acttaccccg attaccagtt 4620
cgtcctcgcg gaaatcgtaa tggacatcaa tcaccaggac cagaccgcca aactcgccgg 4680
cgtctccaaac gccccaggcg agctcgaggc cgagctcaac aagcttcat tgcttatcga 4740
cgccggccctc cccgcaaccg aacacgccta ccaaaccacc cctcacgacg ggcacactct 4800
tcgcgttgg gctgatattc ccgatgctca gttccgcacc cagatc 4846